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TAR SPOT OF HOLLY

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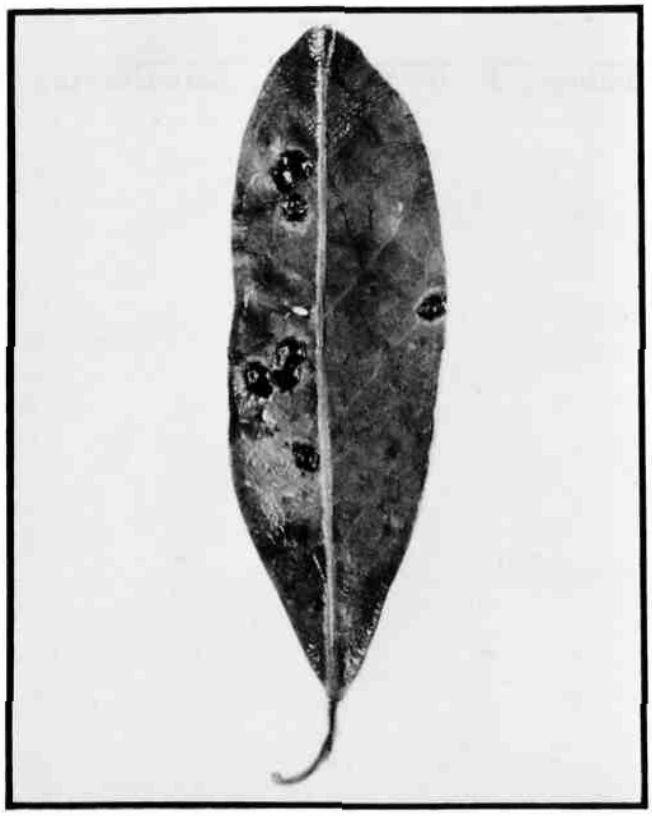
The genus Ilex consists of approximately 400 species which are native primarily to the temperate and tropical regions of North and South America, Europe, North Africa, and Asia (2). They occur mostly as evergreen shrubs and trees, usually with thick, leathery, short-petioled leaves (2). Evergreen hollies are valued for their good habit and attractive foliage with showy berries which are commonly used by the florist industry in wreaths and sprays. Some hollies yield tea-like beverages from dried leaves (2).

In Florida, dahoon holly, I. cassine L., is recommended as a hardy evergreen which grows best in moist soils with some shade (3). It occurs as a shrub or small tree from 30-39 ft (9-12 meters) tall and is widely distributed throughout Florida (1,7). The ecological range of dahoon holly embraces the coastal plain of the southeastern United States, from Virginia to Florida (including the Florida Keys), Texas, the Bahamas, Cuba, and Puerto Rico (3).

The number of disease-causing organisms affecting hollies is rather broad (5,6). Of these pathogens, Phacidium curtisii (Berk. & Rav.) Luttrell [= Rhytisma curtisii Berk. & Rav. and Macrpderma curtisii (Berk. S Rav.) V. Hohn. (4)] is of moderate importance as a foliar spotting fungus on I. cassine as recently noted in Florida and as reported by Luttrell (4) on American holly, I. opaca Ait. The occurrence of tar spot appears to coincide with the ecological range of its hosts, having been reported from most Atlantic coast states, up to and including Massachusetts (4).



SYMPTOMS. The first symptoms of tar spot appear as tiny yellow spots occurring in the spring. The spots slowly expand and become reddish brown in the center, accompanied by a narrow halo of yellow tissue. The spots become raised and shiny black in appearance (Fig. 1) with the formation of a 1-4 mm, cushion-shaped stroma (a compact fungus structure giving rise to the ascospore-producing apothecia of this fungus) beneath the epidermis. The orange-red apothecial discs do not mature until the following spring, at which time the ascospores are released, initiating a new cycle of leaf infection.

Fig. 1. Tar spot disease of Ilex cassine, dahoon holly, caused by Phacidium curtisii showing the characteristic shiny black leaf spots. DPI #702440-4

Severe leaf infections of I. cassine with the tar spot fungus may render nursery-grown plants unsaleable, cause some eventual defoliation as reported with I. opaca (4), and impair the photosynthetic process, thus reducing plant vigor.

CONTROL. No specific controls have been established for this leaf-spotting fungus on I. cassine; however, if the disease incidence is unusually high, the fungicide mancozeb can be tried for disease control.

SURVEY AND DETECTION. The appearance of shiny, coal-black leaf spots, commencing in the spring and persisting throughout the year, is evidence of this disease.

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